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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,494	11/13/2003	Metin S. Mangir	B-4709NP 621023-9	1043
36716	7590 12/07/2005		EXAMINER	
LADAS & 1	PARRY IIRE BOULEVARD, SU	PETKOVSEK, DANIEL J		
	LES, CA 90036-5679	1115 2100	ART UNIT	PAPER NUMBER
	,		2874	

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

			H.
	Application No.	Applicant(s)	
	10/714,494	MANGIR ET AL.	
Office Action Summary	Examiner DOW 12/2/05	Art Unit	
	Daniel J. Petkovsek	2874	
The MAILING DATE of this communication apperiod for Reply	pears on the cover sheet with the c	orrespondence address	
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D.  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period.  - Failure to reply within the set or extended period for reply will, by statuth Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	N. nely filed the mailing date of this communicati D (35 U.S.C. § 133).	·
Status			
1) Responsive to communication(s) filed on elec	tion filed October 17, 2005.		
2a) ☐ This action is <b>FINAL</b> . 2b) ☒ This	s action is non-final.		
3) Since this application is in condition for allowa	ince except for formal matters, pro	secution as to the merits	is
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.	
Disposition of Claims			
4) Claim(s) 1-29 is/are pending in the application	<b>).</b>		
4a) Of the above claim(s) 28 and 29 is/are with	ndrawn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1, 2, 6-12, 16-18, and 21-27</u> is/are re	ejected.		
7) Claim(s) <u>3-5,13-15,19 and 20</u> is/are objected	to.		
8) Claim(s) are subject to restriction and/o	or election requirement.	•	
Application Papers			
9) The specification is objected to by the Examin	er.		
10)⊠ The drawing(s) filed on <u>November 13, 2003</u> is		ted to by the Examiner.	
Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	e 37 CFR 1.85(a).	
Replacement drawing sheet(s) including the correct	tion is required if the drawing(s) is ob	jected to. See 37 CFR 1.121	l(d).
11)☐ The oath or declaration is objected to by the E	xaminer. Note the attached Office	Action or form PTO-152.	•
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign	n priority under 35 U.S.C. § 119(a)	)-(d) or (f).	
a) All b) Some * c) None of:	to have been received		
<ul><li>1. Certified copies of the priority documen</li><li>2. Certified copies of the priority documen</li></ul>	•	ion No	
<ul><li>2. Certified copies of the priority documen</li><li>3. Copies of the certified copies of the priority</li></ul>			
application from the International Burea	•	od III tilis Mational Stage	
* See the attached detailed Office action for a list		ed.	
Attachment(s)			
Notice of References Cited (PTO-892)	4) Interview Summary	(PTO-413)	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail D	ate Patent Application (PTO-152)	
B) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date <u>2/9/04; 6/14/04</u> .	) 5) ☐ Notice of Informal F 6) ☐ Other:	ratent Application (PTO-152)	
<del></del>	,		

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#### **DETAILED ACTION**

This office action is in response to the election filed October 17, 2005.

#### Election/Restrictions

- 1. Applicant's election with traverse of the restriction between Groups I and II in the reply filed on October 17, 2005 is acknowledged. The traversal is on the grounds that the restriction was improper because the conditions for restriction were not met under MPEP § 808.02. This is not found persuasive because the Examiner has provided separate classification and has shown that the two invention employ materially different processes. It is asserted by the Examiner that claims can be classified separately by being in different subclasses in the art even though within the same "class". Quite often, diverging claims are placed with the same large class.
- Applicant's traversal of the restriction between two species (claims 1-15; claims 16-27) is persuasive. As such, claims 1-27 will be examined.

The requirement is still deemed proper and is therefore made **FINAL**.

Claims 28 and 29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on October 17, 2005.

## Information Disclosure Statement

4. The prior art documents submitted by Applicant in the Information Disclosure Statements filed on February 9, 2004, and June 14, 2004, have been considered and made of record (note attached copy of forms PTO-1449).

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## Claim Objections

5. Claims 7, 8, and 15 are objected to because of the following informalities: the claims should be dependent upon claims 6 and 7, respectively, since the second (and third) optical amplifier terms lack antecedent basis when dependent upon claim 1. Claim 15 lacks a period. Appropriate correction is required.

## Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 7. Claims 1, 2, 9, 16, 23, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams H1791.

Williams H1791 teaches (Figs. 4, 8, 9; column 8, lines 26-52) a limiter comprising: a transmitter 48 having a signal with at least two frequency components; a signal divider 50, 78 for dividing a signal; a first SBS medium that receives a first signal and propagates through the system; and a second SBS medium 80 that receives a second signal and inherently generates a Stokes light, in which the first and second medias are coupled to each other (see Fig. 8 for plural uses), which clearly, fully meets Applicant's claimed limitations.

Regarding claim 2, the light propagates in a reverse direction.

Regarding claims 9 and 23, the medium is arranged in a loop.

Regarding claims 16 and 27, modulation occurs in the modulator 90 and in the optical system.

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8. Claims 1, 2, 9-12, 16-18, and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Yao U.S.P. No. 5,917,179.

Yao U.S.P. No. 5,917,179 teaches (Figs. 7A, 8A, 8C; column 11, line 60 through column 12, line 24) a limiter 701 comprising: a transmitter 210 having a signal with at least two frequency components; a signal divider 710 for dividing a signal; a first SBS medium 250 that receives a first signal; and a second SBS medium 720 that receives a second signal and inherently generates a Stokes light, in which the first and second medias are coupled to each other, which clearly, fully meets Applicant's claimed limitations.

Regarding claim 2, the signal propagates in a reverse direction.

Regarding claims 9 and 23, the medium is arranged in a loop-like shape.

Regarding claims 10 and 24, the medium is an optical fiber having a non-reflective end, the end being isolated from other elements of the limiter.

Regarding claims 11 and 12, modulator 220 is disclosed associated with at least one frequency component.

Regarding claims 16 and 27, the signal is modulated by modulator 220, divided by divider 710, propagated by a first scattering medium, stokes waves are inherently generated, and these backscattering stokes waves return to the first scattering medium.

Regarding claims 17 and 18, at least one optical frequency component is removed.

Regarding claims 25 and 26, modulation occurs with a reference input having at least two frequency components.

## Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 10. Claims 6-8, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao U.S.P. No. 5,917,179.

Yao U.S.P. No. 5,917,179 teaches (Figs. 7A, 8A, 8C; column 11, line 60 through column 12, line 24) a limiter 701 comprising: a transmitter 210 having a signal with at least two frequency components; a signal divider 710 for dividing a signal; a first SBS medium 250 that receives a first signal; and a second SBS medium 720 that receives a second signal and inherently generates a Stokes light, in which the first and second medias are coupled to each other.

Yao '179 does not explicitly teach amplification of the optical signals (claims 6-8, 21, and 22). A person having ordinary skill in the art at the time the invention was made would have recognized amplifying the optical signal in order to improve the optical coupling throughout the system. Optical amplification is well-known in order to heighten the optical signal and thus improve coupling performance.

### Allowable Subject Matter

Claims 3-5, 13-15, 19, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The relevant prior art of record does not teach or reasonably suggest using an optical notch filter for the claimed purpose

of removing Stokes light (claims 3-5 and 13-15), or removing a first Stokes waves from a set of Stokes waves.

## Inventorship

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to 13. applicant's disclosure, with respect to the state of the art of seeding a signal with a secondary Stokes wave: PTO-892 form references B-D.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Petkovsek December 3, 2005